

A1112728-8  
 10/28/03  
 include  
 cont.  
 5/28/03  
 means  
 strongly bound water  
 esp to the surface  
 of micelles  
 or micellar  
 aggregates

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13. A method according to claim 12, wherein the water in the solution is nonfreezing water.

14. A method according to claim 12, wherein the nanomaterial particles have a diameter of 1-5 nm.

15. A method according to claim 12, wherein the mild conditions are atmospheric pressure and a temperature range of room temperature to 70°C.

16. A method according to claim 12, wherein the chemical reaction is a hydrolysis process.

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17. A method according to claim 12, wherein the chemical reaction is a reduction process.

in Ex. 18 of

SUB  
 D17

18. A method according to claim 12, wherein the chemical reaction is an exchange process.

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19. A method according to claim 12, wherein the solution comprises an organized water-organic surfactant.

20. A method according to claim 12, wherein the solution comprises a microemulsion.

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21. A method according to claim 12, wherein the solution comprises liquid crystalline media.

22. A method according to claim 12, wherein the solvent is selected from the group consisting of a suitable hydrocarbon, a chlorinated hydrocarbon and ether.

reads as

in Belg. 934 Ex. 11

23. A method according to claim 22, wherein the hydrocarbons are selected from the group consisting of octane, decane and dodecane.

24. A method according to claim 22, wherein the chlorinated hydrocarbon is 1, 2-dichlorethane.

25. A method according to claim 22, wherein the ether is ethylether.

26. A method according to claim 12, wherein the surfactants are selected from the group consisting of trioctylmethyl ammonium chloride (aliquat 336), dioctyldimethylammonium bromide (DDAB), cetyltrimethylammonium chloride (CTAB); sodium bis-(2-ethyl-hexyl)-sulfosuccinate; and poly-ethoxyethylene-10-oleyl ether.

27. A method according to claim 12 wherein metal oxides and metal precursors are selected from the group consisting of triethoxy silanes (TEOS); trimethoxy silane (TMOS); Al, Zr isopropoxides; Fe, Mg and Al chlorides; Al and Mg acetates; Na and K orthosilicates; Zr oxychloride and transition metal salts of Fe, Co, Ni, Cu, Ru, Rh, Pd, Ir and Pt.

28. A method according to claim 12, wherein the polymers are selected from the group consisting of polyethylene oxide (PEO); polyvinyl chloride (PVC); polyvinyl alcohol (PVA); and polymethyl methacrylate (PMMA).

29. A method according to claim 17, wherein the reducing agent is selected from the group consisting of sodium formate; hydrogen; and alcohol.

30. A method according to claim 29 wherein the alcohol is selected from the group consisting of methanol, ethanol, and isopropylalcohol.